Development of a Thermal Isolation Structure for Aerospace Cryogenic Instruments

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A "proof of concept" structure has been developed to demonstrate the capabilities of a lightweight, rigid, compact, thermally isolating structure for aerospace low temperature instruments. The modular design not only provides thermal isolation of the instrument from its surroundings, but also between the components within the instrument, to avoid bias resulting from thermal "crosstalk". In this paper the design requirements as well as the implementation experiences will be described.

This work was carried out by the Jet Propulsion Laboratory, California Institute of Technology under contract to the National Aeronautics and Space Administration. The work was funded by NASA Microgravity Research Division.

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Sorting Category: CEC - 13 (Aerospace Cryogenics)

Presentation Preference: Oral

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